CASPIAN TERN MANAGEMENT IN THE COLUMBIA RIVER ESTUARY

US Army Corps of Engineers ®
Portland District

U.S. FISH & WILDLIFE SERVICE
DEPARTMENT OF THE INTERIOR

NOAA
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

YOU WILL BE ASKED TO COMMENT ON THESE QUESTIONS:

Should the Caspian Tern colony on East Sand Island be reduced to decrease tern predation on young salmon in the Columbia River?

Would you have concerns about relocating some terns within their historic range to a nesting site near your community?

What other concerns do you want to see addressed in the EIS?

WHAT ARE THE ISSUES?

East Sand Island hosts a large Caspian Tern nesting colony - threatened and endangered young salmon are part of the birds' diet.

Unlike it's historic distribution, the Pacific Coast population of Caspian Terns is now concentrated on East Sand Island. This concentration makes the population at risk to catastrophic events.

The purpose of the Environmental Impact Statement (EIS) is to determine management actions to help salmon recovery and protect Caspian terns.

GUIDING PRINCIPLES FOR DEVELOPING MANAGEMENT ALTERNATIVES

1. Caspian Terns and salmon are native to the Pacific Northwest.

2. Caspian Terns and salmon are protected by various Federal and State laws.

3. Tools are available to manage terns and salmon.

4. Tern predation will be managed so as not to hinder salmon recovery.

5. Management actions will ensure Caspian Terns remain a part of estuary, coastal, and interior ecosystems of the Pacific Coast region.

BACKGROUND

1995: NMFS required Corps of Engineers to study Caspian Tern predation on young salmon on Rice Island in the Columbia River estuary.

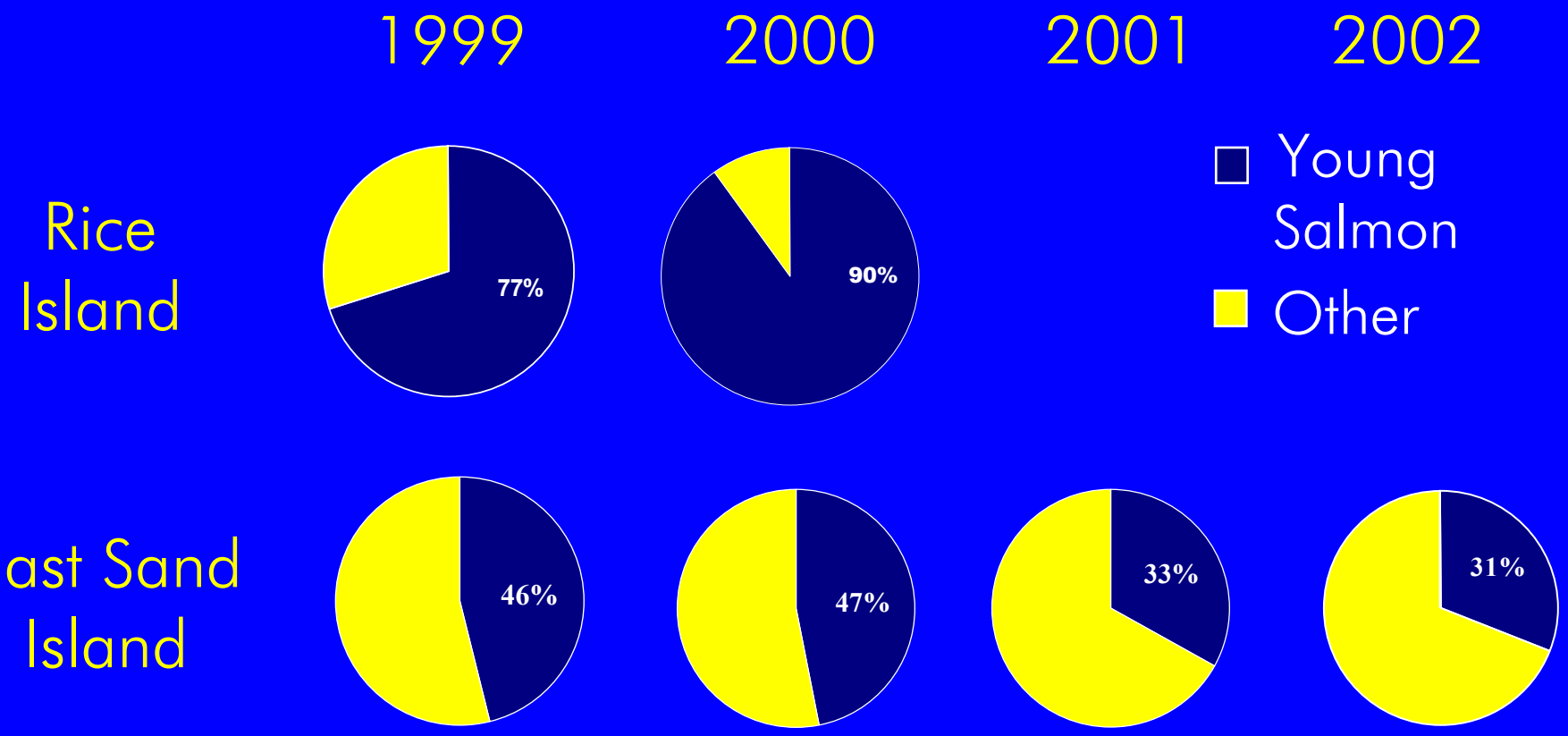
1999: NMFS required Corps of Engineers to limit Caspian Tern nesting on Rice Island to reduce tern predation on salmon. Silt fences were installed to restrict tern nesting to ~ 1 acre.

1999 and 2000: Corps of Engineers attracted Caspian Terns to East Sand Island where fish (non-salmon) are abundant. Attraction measures included habitat enhancement, use of tern decoys and recorded tern calls. The Rice Island tern colony has been successfully relocated to East Sand Island.

RESULTS OF MANAGEMENT ACTIONS

- With more marine fish (non-salmon) available near East Sand Island, the proportion of salmon in the tern diet is significantly less than on Rice Island.

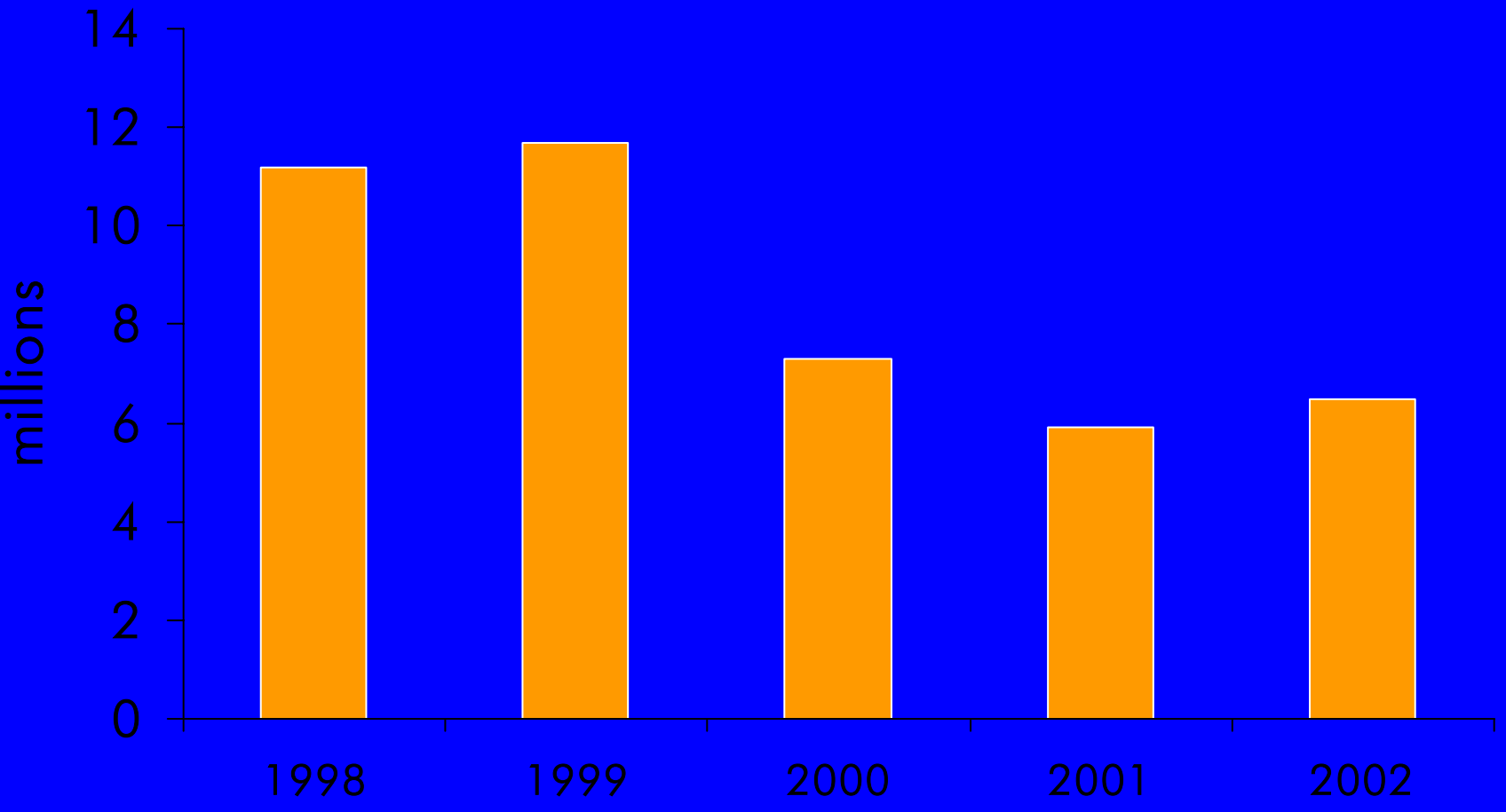
CASPIAN TERN DIET COMPOSITION ON RICE AND EAST SAND ISLANDS



RESULTS OF MANAGEMENT ACTIONS

- As a result of relocating terns to East Sand Island, the number of young salmon eaten decreased by 42%.

NUMBER OF SMOLTS CONSUMED BY CASPIAN TERNS IN THE COLUMBIA RIVER ESTUARY



2000: National Audubon Society, Defenders of Wildlife, Seattle Audubon, and American Bird Conservancy sued the Corps of Engineers and FWS for:

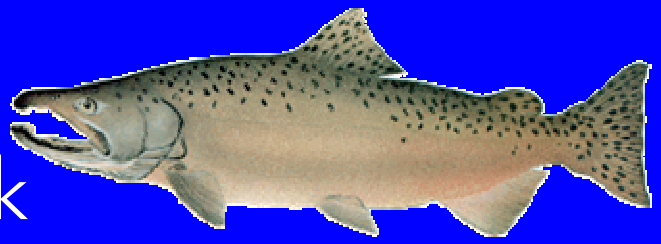
- inadequate evaluation of environmental impacts before moving terns from Rice Island to East Sand Island
- authorizing the take of eggs to discourage tern nesting on Rice Island

2002: Settlement Agreement reached requiring FWS, Corps, and NMFS develop EIS for Caspian Tern management in Columbia River estuary.

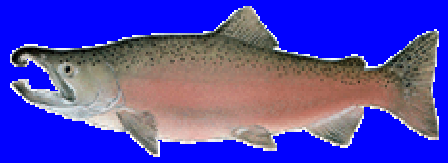
SALMON SPECIES OF CONCERN IN THE COLUMBIA RIVER

- Steelhead

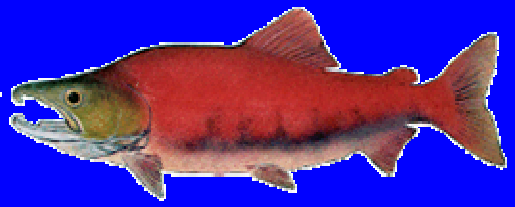
- Fall Chinook



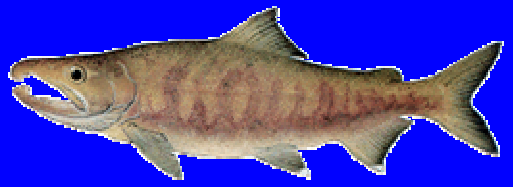
- Spring/Summer Chinook



- Coho



- Sockeye



- Chum

THREATS TO SALMON

Salmon are threatened by:

- habitat destruction
- hydroelectric dams
- harvest issues
- hatchery issues
- predation of young salmon (fish and birds)

Despite record returns of adult salmon in recent years, populations of listed wild salmon are still depressed.

Caspian Terns first nested in the Columbia River estuary in 1984.

Terns have concentrated in the Columbia River estuary because habitat elsewhere in the Pacific Coast region has declined. Human-created islands in the estuary offer stable nesting habitat near abundant fish resources.

In 2002, 70% of the entire Pacific Coast population nested on East Sand Island. This concentration means that a large portion of the Pacific Coast population is vulnerable to threats such as storms, predators, disease, and oil spills.

CASPIAN TERN COLONY ATTENDANCE COUNTS, COLUMBIA RIVER ESTUARY